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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/578,875

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Toshiro Oyama

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EXAMINER

MAKI, STEVEN D

ART UNIT

PAPER NUMBER

1791

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/578,875	Applicant(s) OYAMA, TOSHIRO	
	Examiner Steven D. Maki	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>070706.051106</u> . | 6) <input type="checkbox"/> Other: ____. |

Art Unit: 1791

- 1) Claims 1-14 are objected to because of the following informalities: In claim 1, "slop" should be --slope--. Appropriate correction is required.
- 2) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

- 3) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Miyake

- 4) **Claims 1-4, 11 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Miyake (US 2005/0230020).**

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

The claimed tire is anticipated by Miyake's pneumatic tire. The claimed protrusions read on the high portions of the projecting stripe 10 as shown in Figure 5, Figure 7b or Figure 7c.

Japan 107

5) Claims 1-3, 11, 13 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Japan 107 (JP 62-239107).

The claimed tire is anticipated by Japan 107's pneumatic tire. The claimed protrusions read on the high portions of projection 3. The claimed angle reads on an angle of a tangent to the "slope portion". This angle is smaller toward the "highest portion". With respect to claim 14, see Figure 3 and paragraph 14 of machine translation of Japan 107.

6) Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 107 (JP 62-239107).

As to claim 4, it would have been obvious to one of ordinary skill in the art to provide Japan 107's projection 3 such that the height of the top portion is at least 2 mm but also less than 50% of groove depth / land height D since (1) Japan 107 teaches using the invention for a passenger car, (2) Japan 107 teaches that the height d of the highest portion is 15-30% of the groove depth D and (3) official notice is taken that it is well known / conventional per se to provide grooves in a tread of a passenger car tire with a depth of 6 mm to 8 mm.

As to claim 5, Japan 107's tire has the claimed "joint portion" because the highest portions of the projection 3 are connected together. It would have been obvious to one of ordinary skill in the art to provide Japan 107's projection 3 such that the height of the joint portion is equal to or less than 1 mm since (1) Japan 107 teaches using the invention for a passenger car, (2) Japan 107 teaches that the height d of the highest

Art Unit: 1791

portion is 15-30% of the groove depth D, (3) Japan 107 teaches that height h is 50-70% of height d (joint portion height being equal to d minus h) and (4) official notice is taken that it is well known / conventional per se to provide grooves in a tread of a passenger car tire with a depth of 6 mm to 8 mm.

Japan 108

7) Claims 1-3 and 12-13 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Japan 108 (JP 06-239108).

Japan 108 discloses a pneumatic tire with a tread comprising blocks, transverse grooves and circumferential grooves. Protrusions 4 are formed at the bottom of the circumferential groove. The protrusion has a bottom portion having a length longer than the length of the top portion (Figure 3). The longitudinal ends of the projection each have a sloped surface which is inclined with respect to the groove bottom (Figure 3).

As to claim 1, the claimed tire is anticipated by Japan 108's tire. The claimed protrusions read on protrusions 4. The illustrated angle of inclined slope surface is 58 degrees with respect to the bottom surface. The value of 58 degrees falls within the claimed range of between 3 degrees and 60 degrees. In any event: It would have been obvious to one of ordinary skill in the art to incline the sloped surfaces at the end of Japan 108's protrusion at an angle between 3 degrees and 60 degrees since Japan 108 teaches forming the projection 4 having sloped end surfaces as shown in Figure 3 such that (a) stones can be ejected from the groove and (b) the projection is not easily broken. See machine translation of Japan 108.

As to claim 2, both longitudinal ends of projection 4 are sloped.

As to claims 3 and 13, the top portion and slope surface have the same width.

As to claim 12 (protrusion main body and slope portion being separated from each other), the "protrusion main body" reads on one of the protrusions 4 and the "slope portion" reads on another protrusion 4. With reference to Figure 3 of Japan 108, claim 12 fails to exclude another slope portion being located between the "protrusion main body" In other words, the claimed slope portion reads on the slope portion of the partially illustrated protrusion at the far left in Figure 3 and the claimed "protrusion main body" reads on the "main body" of the fully illustrated protrusion in Figure 3.

8) Claims 1-4, 6-10 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goto et al (US 5,160,385) in view of Japan 108 (JP 06-239108).

Goto et al discloses a pneumatic tire with a tread comprising blocks, transverse grooves and circumferential grooves. Protrusions 34 for preventing stone capturing are provided on the bottom of the grooves. Protrusion 34 is disposed at an intersection of a transverse groove and a circumferential groove. The protrusion 34 extends in three directions to thereby have three ends or extends in four directions to thereby have four ends. See Figures 2, 3a, 3b and 3c. The protrusion 34 has a height of 40-50% of the depth of the circumferential groove. In an example, the height of the protrusion is 9.6 mm and the depth of the groove is 22 mm. Goto et al does not recite shaping the ends of the protrusion 34 such that each end has a sloped surface inclined at 3-60 degrees.

As to claim 1, it would have been obvious to one of ordinary skill in the art to shape the ends of Goto et al's low height protrusion for preventing stone capturing such

Art Unit: 1791

that each end has a sloped surface which is inclined at an angle between 3 degrees and 60 degrees with respect to the groove bottom since Japan 108, also directed to low height projections in grooves of a tire tread, suggests forming a projection 4 for ejecting stones from the groove such that ends of the projection have sloped surfaces as shown in Figure 4 so that (a) stones can be ejected from the groove and (b) the projection is not easily broken.

As to claim 2, Japan 108 suggests sloping the ends of Goto et al's protrusion which can have two of the ends extend in opposite directions.

As to claims 3 and 13, Japan 108 teaches the top portion and sloped surface of the protrusion as having the same width at a location away from the intersection of the projected parts.

As to claim 4, Goto et al teaches the protrusion having a height of 40-50% of the groove depth.

As to claims 6-10, Goto et al teaches disposing projections 34 at intersections of grooves wherein the protrusion 34 extends in three directions to thereby have three ends or extends in four directions to thereby have four ends (Figures 2, 3a, 3b and 3c) and Japan 108 suggests sloping the ends of Goto et al's protrusion, which can have three or four ends.

As to claim 12 (protrusion main body and slope portion being separated from each other), the "protrusion main body" reads on one of the protrusions 34 and the "slope portion" reads on another protrusion 34 or a slope portion of a protrusion having

Art Unit: 1791

a total of only two ends (i.e. between the blocks) wherein Japan 108 suggests sloping ends of a projection in a groove. .

Claim 14 reads on Figure 3b of Goto et al as modified by Japan 108. The portion main body has a width at the intersection of the projected parts which is larger than the width of a projected part; Japan 108 suggesting sloping the end of the projected part.

Remarks

9) The remaining references are of interest.

10) No claim is allowed.

11) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steven D. Maki/
Primary Examiner, Art Unit 1791

Steven D. Maki
March 26, 2009